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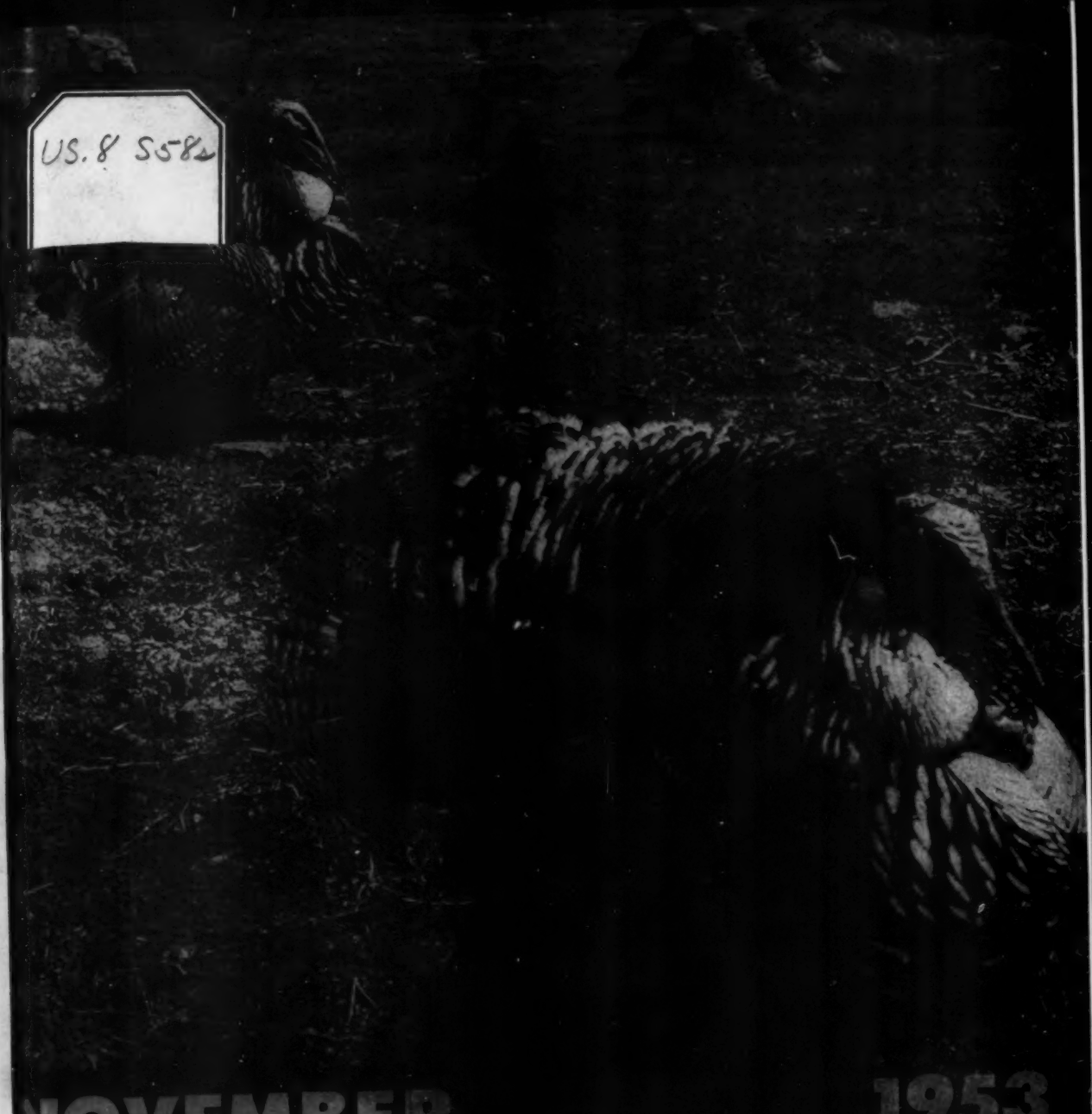

NOVEMBER 1953

SOIL CONSERVATION

OFFICIAL ORGAN OF THE SOIL CONSERVATION SERVICE

SOIL CONSERVATION •

NOVEMBER 1953
VOL. XIX—NO. 4

EZRA TAFT BENSON
SECRETARY OF AGRICULTURE

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CHIEF, SOIL CONSERVATION SERVICE

ISSUED BY SOIL CONSERVATION SERVICE
U. S. DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.

★ THIS MONTH ★

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WELLINGTON BRINK
Editor

SOIL CONSERVATION is published by direction of the Secretary of Agriculture as administrative information required for proper transaction of the public business, under approval (August 6, 1951) of the Director of the Budget. SOIL CONSERVATION supplies information for workers of the Department of Agriculture and others engaged in soil conservation.

15 CENTS PER COPY — $1.25 PER YEAR

FOREIGN—$1.75 PER YEAR

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HISTORICAL MARKERS.—The Georgia Historical Commission is planning to place markers throughout the State to call attention to the locations of agricultural events of historic significance. In response to a request from J. C. Hilton, assistant to Commissioner of Agriculture Tom Linder, the Soil Conservation Service has suggested the following four locations for markers for events of historic significance in soil conservation:

1. Sandy Creek Demonstration Project—site of the first soil and water conservation work in the USDA erosion control demonstration program, and also site of the first Civilian Conservation Corps Camp assigned to work in the soil conservation program, with headquarters at Athens.

2. Coosa River Soil Conservation District—first soil conservation district organized in Georgia, with headquarters at Rome.

3. Early farm plantings of blue lupine in Dooly County, Ga., site of the Blue Lupine Festival. SCS encouraged plantings of blue lupine as a cover crop for peanut lands during World War II, when large acreages of peanuts were grown to provide fats and oils for war uses. Blue lupine has continued to be used extensively for winter cover throughout the lower South.

4. Log Cabin Jamboree in Hancock County, a southwide soil conservation event for Negroes conducted annually near Sparta.

FRONT COVER.—Ready for Thanksgiving are these turkeys on the C. J. Bevington farm, Mt. Vernon, Ohio. There's room for a variety of products that make for good eating on the modern conservation farm. Photographer: George Pace.

All orders go to the Superintendent of Documents, Government Printing Office, Washington 25, D. C.

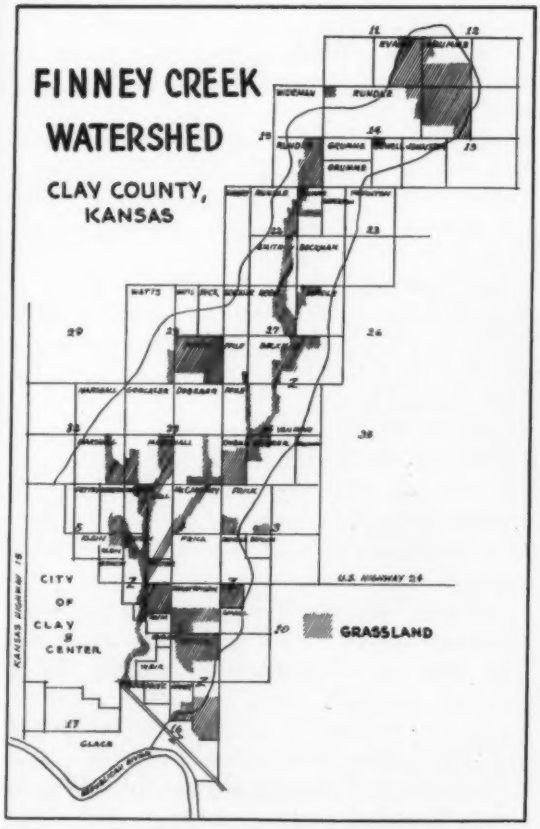
Something Doing in Finney Creek Watershed

"By setting goals as a group we will greatly speed up application of soil and water management practices," says Chairman Lyndon Rundle

By DICK MANN

ONE of the most encouraging trends in Kansas agriculture these days is the voluntary and informal organization of farmers in dozens of small watersheds. Object—to solve their soil and water problems together. A good example of what is taking place is found in Finney Creek Watershed, in Clay county. This small watershed is only 5 miles long, comprises about 8,000 acres and is owned by 48 landowners.

NOTE.—This article is reprinted by publisher's permission from the *Kansas Farmer* for July 4, 1953.



This map shows area covered by Finney Creek Watershed. Farmers in the area have banded together to overcome their soil and water management problems.

Several months ago Lyndon Rundle and a few of his neighbors in the upper part of the watershed got to talking about their mutual soil conservation problems. They were at a meeting in the Hayes Methodist Church, northeast of Clay Center.

As a result of this discussion, Mr. Rundle approached Earl Nichols, Clay County work unit conservationist, with a request that a meeting be called for farmers in the watershed area; and that someone from SCS be present to fully explain the watershed treatment program.

This meeting was held at the Hayes church on February 16, 1953. The area conservationist, B. K. Geraghty, of Manhattan, explained the watershed program and outlined advantages and disadvantages of a watershed organization. At the end of this meeting the 12 to 15 farmers who attended elected a steering committee to prepare a plan of action and a timetable. Lyndon Rundle was selected chairman, Roy Anderson and Jake Glace, members of the committee, and Earl Grumme historian.

This committee lost no time. On March 16, it met with Clay County Soil Conservation District supervisors to request recognition as a watershed group. The board of supervisors agreed to provide assistance and appointed Charles Down their representative in the watershed.

Next task for the steering committee was to prepare a schedule of major objectives in the watershed and a timetable for achieving them. Here is the outline they adopted:

All land treatment to be completed in 5 years (by

1958). Conservation needs to be determined as soon as possible.

1. Twenty-five percent of cropland in legumes—1,500 acres, by end of 1954.
2. All waterways established by end of 1956.
   a. All waterways surveyed and marked by end of 1953.
   b. All waterways shaped and seeded to cover by end of 1954.
   c. All waterways shaped and seeded by end of 1955.
3. All terraces having natural outlets available constructed by end of 1954.
4. All Class VI land established to perennial legumes and grasses by end of 1958.

The plan of action includes (1) making colored movies of the watershed annually to show progress; (2) establishing grass plots of adapted grasses (already done); (3) locating 2 rain gauges (already done); (4) erecting watershed boundary signs (already done); (5) preparing an historical record, and (6) district signs on each co-operator's farm.

A valuable first move was to call all landowners and tenants together in a neighborhood meeting on March 24. There soil conservationists explained the classes or types of land in the watershed and the capabilities of each class or type of land. Each farm then was visited by the group to look over water management problems firsthand.

Here is what farmers attending the March 24 meeting learned about their watershed. At present 1,764 acres in the watershed are in grass and 3,839 acres in crops. A breakdown of land classes disclosed there are only 624 acres of Class I land; 12 acres of Class II; 4,048 acres of Class III; 476 acres of Class IV, and 980 acres of Class VI. The other 600 to 800 acres to make up the watershed are in the city limits of Clay Center. This list shows bulk of land in the watershed is Class III. What is Class III land?" "It is land that needs intensive treatment with all the practices in the book to maintain fertility and prevent erosion," says Earl Nichols, work unit conservationist.

A further breakdown of the watershed area has shown farmers living in it exactly the condition the watershed is in today, and how far they have to go to bring it up to standard.

A total of 588 acres of contour farming is in force with 2,544 acres more needed; pasture seeding has been completed on 68 acres with 287 acres more needed. This is all Class VI land that needs to be put back into pasture.

Five farm ponds have been built but 15 more are needed. A total of 25.5 miles of terraces have been built with 127.2 miles more needed. Fifty-six acres have been put into grassed waterways with 246 acres more needed. Five miles of diversion terraces have been completed and 1.6 miles needed.

Conservation rotations including temporary grasses are being followed on 1,088 acres with 2,307 more acres needed. No stabilization structures (for erosion) have been built but 19 will be needed. Also needed will be 12 detention dams.

Now, what advantage is there to organizing a watershed group like that of Finney Creek? The group is not organized under the new Kansas Watershed Law and is not legally bound to do anything.

Let some of the Finney Creek farmers tell you the answer. Says Jake Glace, farmer in the lower end of the watershed, and one of the early boosters for organizing: "When neighbors get together and talk over their soil and water management problems, then go out and walk over one another's farms to study those problems, they get an understanding they never had before." He referred specifically to 2 cases in which one neighbor, after learning the true situation, allowed an adjoining neighbor to dump terrace water on his pasture.

Earl Grumme, historian and farmer in the upper watershed, says: "What each individual does alone is just a drop in the bucket. But what we do together will amount to something and we can better see the results."

Lyndon Rundle, upper watershed farmer and chairman of the watershed group steering committee, says: "I believe by setting group goals and working toward those goals as a group we are going to greatly speed up application of soil and water management practices.

"Already," he says, "there is a much greater interest in conservation among farmers in the area than there was before we organized. By holding meetings, keeping a record of progress, and other means we can continue to stimulate that interest and keep it going at top speed."

We had a good chance to see some of the Finney Creek Watershed problems in May. We visited the watershed next morning after a 3.57-inch rain.

(Continued on page 82)

Effects of uncontrolled runoff on a cornfield in Finney Creek Watershed are discussed by Lindon Rundle, right, and Earl Nichols, Clay County work unit conservationist, following a 3.57-inch rain.

Corn culture reenacted by modern make-believe Pilgrims in garden of 17th century Howland House, a tourists' landmark.

Conservation in the Land of the Pilgrims

Since the days of Squanto, Massachusetts has come a long way in management of soil and water.

By ARTHUR B. BEAUMONT

Tisquantum, or Squanto, who taught the Plymouth colonists how to grow corn.

THOUGHTS of the Thanksgiving season usually conjure up mixed visions of Pilgrims in quaint garb wending their way to church, bountiful harvests, and tables groaning under the weight of roasted turkey, cranberry sauce, and other delectables. But the first public thanksgiving was not like that. It was much more simple but probably more genuine than many that have followed. The natural resources of the "stern and rockbound coast" to which these Pilgrims had come were meager. Thrift, frugality, and conservation were essential for survival, and these homely virtues early became a part of their way of life and have been practiced by their descendants down through the years.

It was in the autumn of 1621 that Governor Bradford of the Plymouth Colony ordered his followers to observe a day of thanksgiving for the harvest. They had experienced a difficult year since they landed. There had been little to eat. The bitter cold of the New England winter had crept through the thin bark walls of their improvised huts. Sickness had taken a heavy toll, and there were many fresh graves of loved ones on the knoll above the sea. But now harvested crops would at least keep them through the coming winter, and they had learned how to take wild game. They were more optimistic about the future, and it was a time for thanksgiving if not rejoicing.

The men went into the woods and shot a number of wild turkeys for the dinner. A few friendly Indians heard of the festival and brought in several deer. White people and bronze-skinned savages sat down and feasted together, and the colonists thanked God for His bounty. Happy circumstances had enabled them to grow a new kind of grain which, with the wild game, would keep them through the winter. They had stored a quantity of this novel grain, which they called Indian corn. It was a small-eared, vari-colored variety of maize, which the American Indians undoubtedly had gotten in the first place from Central America and had grown for thousands of years before the white men came to the continent.

It might have been attributed to Divine Providence that the Pilgrims found ready at hand a number of cornfields which the natives had abandoned. Pestilence and famine in previous years had decimated the Indian population along this seacoast. Too weak and emaciated after a hard winter to have cleared land for themselves, the colonists used these abandoned fields for their crops. Not only did they thus fall heir to ready-made fields, but they were fully as fortunate, if not more so, in having a good instructor at hand in the person of a friendly Indian named Tisquantum, better known as Squanto. Squanto has been dubbed the first county agent because he taught the colonists to grow corn.

Note.—The author is state conservationist, Soil Conservation Service, Amherst, Mass.

"Get fish and set with it," said Squanto when instructing the pilgrims in growing corn. To commemorate the Indian practice of fertilizing with fish, the Plymouth Antiquarian Society each year reenacts the scene where it first took place, the Harlow Fort House, Plymouth, Mass. Just when, where and how the Indians first learned that a fish buried with a kernel of seed would grow better corn, nobody knows. They never heard of such elements as nitrogen and phosphorus but they could grow corn. The run of herring up Town Brook gave them a ready supply of fish for fertilizer.

Little did Squanto realize or suspect that, by teaching the colonists to grow maize, he had opened a Pandora box of soil erosion ills. He could not have imagined that within a third of a millenium white men would be growing more than 3 billion bushels of corn on nearly 90 million acres of land and that unwise cultural methods would cause severe erosion on many millions of these acres. Indian cultural methods for corn, at least in Squanto's country, never caused any considerable amount of soil erosion. The aborigines had no plows.

Land of the Plymouth Colony eventually became a part of what is now Plymouth County, Mass. This county was not naturally endowed with fertile soils. Its upland soils can well be described by saying they need nearly everything but more sand. It is not surprising that the American Indians discovered that a fish in a hill of corn was a good practice on soils like these. To make and keep them productive, the best methods of management and conservation are now used. Today's farmers, using commercial fertilizer often blended with fish meal and tankage in the Indian tradition, have made the old Colony soils richer than they ever were originally. Modern conservation practices keep fertile soils from washing or blowing away.

In contrast to the upland sandy soils, Plymouth County has lowland organic soils of great value,

Sweet corn grown the conservation way on farm of Philip Trufant, in Plymouth County.

Indian corn and wild cranberries occupy a prominent place in a Thanksgiving pageant. (Photo by Randall W. Abbott, courtesy of National Cranberry Association.)

not because of their fertility but because of their adaptability to special use. These are the peaty soils on which cranberry bogs are built. Here, again, the American Indians enter the story, for it was they who taught the early settlers that cranberries were edible. The Indians made a tasty dish of dried venison and cranberries which we called pemmican. The Indians and the early settlers used the wild berries, but in 1816 it was discovered that the cranberry, or crane berry, as it was first called, could be cultivated. The first true cranberry bog was built on Cape Cod in 1846 and is still producing berries. Since that time the industry has been developed to the point where Massachusetts produces about two-thirds of the nation's cranberry crop and most of it comes from Plymouth County.

Although Plymouth County farmers, from colonial times on, handled their soils well and in many cases improved them to a high degree, there were losses from erosion. After the passage of the state's districts enabling act, farmers of the county were quick to realize that they could benefit from a soil conservation district, and so through the regular procedure of petition and public hearing a district was established in 1947. During the 6 years of its existence this district has made a creditable record in the establishment of conservation and land improvement practices, many of which were needed to round out a sound program of soil management on many farms. Now, one can see in the landscape such conservation practices as contour planting, stripcropping, terracing, grassed waterways and cover crops. Also, technical assistance in problems of water conservation and management is supplied to cranberry growers by technicians of the Soil Conservation Service, working through districts.

Consider the accomplishment of Stafford Johnson, Bridgewater, the first cooperator who signed up with the district. Technicians of the Soil Conservation Service assisted Johnson in preparing a complete conservation plan of his 231-acre dairy farm. During the 6 years that have elapsed since the plan was prepared, all of the planned practices, with the exception of 1,250 feet of outlet ditches, have been established and Johnson intends to install these this year. He has established the following: 26 acres of contour stripcropping; 4,650 feet of outlets and grassed waterways; 76 acres of wet land drained by 1,350 feet of open drainage ditches;

Cultivated cranberries on a modern bog in Plymouth County.

40 acres of trees and stones cleared to permit better soil conserving cropping systems; 82 acres of pastureland included in a rotational grazing and management program, and 1,850 pine and spruce trees planted on non-agricultural land. He has installed an irrigation system for his hay and pasture fields, and visitors to the farm know that his alfalfa stands rank with the best in the state.

In these ways, on many farms, soil conservation is putting the new look on the old land where the Pilgrims first settled.

WATERSHED TREATMENT GETS RESULTS.—Reduction in muddiness of the Second Broad River, in Rutherford County, N. C., from 1,400 parts per million to 200 parts per million between 1936 and 1953 is attributed to soil conservation work in the watershed by Jess W. Honeycutt, who has charge of the Cliffside Waterworks in Rutherford County.

Daily charts kept by Honeycutt show the turbidity of the stream at the waterworks has continually declined over this 17-year period. This coincides with the soil and water conservation work that has been under way in the watershed.

"I am sure that soil conservation can be given a big part of the credit for clearing up the stream in this manner," Honeycutt told S. C. Walker, SCS work unit conservationist in Rutherford County.

FINNEY CREEK

(Continued from page 76)

Finney Creek had been out of its banks in a flash flood and many newly-planted cornfields had been badly damaged. One field on the Grumme farm had been badly washed by uncontrolled runoff from poorer land on up the hillsides. At the lower end of this cornfield, where water empties into Finney Creek, water had cut back into the field some 30 feet, and at time of our visit there was a waterfall of 2½ to 3 feet expanding the damaged area.

Discussing this and other problems in the watershed, Mr. Grumme recalled he had lost more crops from wind erosion than from water, and that he intended to plant some windbreaks and make other improvements that will cut down all types of erosion.

We asked Jake Glace whether the district would need federal help when it came time to build the larger retention dams called for in the long-range plan. "I doubt it," he said. "I think farmers in the watershed can pool enough equipment to build them ourselves with little expense other than labor involved."

That's the kind of spirit organizing a watershed group seems to stimulate. Conservationist Nichols emphasizes one final important point. "All the desire and the push for such watershed groups should come from farmers within the area affected," he says. "If that procedure is followed, with technicians giving what help we can from the outside, the program is bound to be a success."

REPORT FROM WEST GERMANY.—A 147-page illustrated publication, No. 20, of the "Mitteilungen aus dem Institut fur Raumforschung Bonn" contains part of the investigations on soil erosion and soil conservation that were carried out in Germany after 1945. These papers were originally read at the annual conferences of the 6th Committee (agricultural engineering, soil conservation) of the Deutsche Bodenkundliche Gesellschaft (association of German soil scientists) in 1950 and 1951.

Seven specialists contribute to the document: H. Kuron, P. Ehrenberg, H. Weber, W. Taschenmacher, L. Jung, W. Hannemann, and B. Grosse.

SALES BOOSTED.—In Wisconsin newspapers the phrase, "Under soil conservation plan last 5 years" is becoming common in many a farm-for-sale advertisement.

Good Soil Management Pays

By A. M. HEDGE

FARMERS who desire to decrease soil erosion are frequently advised to include more grasses and legumes in their cropping systems. The question of most farmers is, "Does it pay?"

To get the answer to that question the Nebraska Agricultural Experiment Station recently studied 30 hilly farms, each comprising 160 acres, in Dakota and Dixon Counties, Nebr. The farms were ranked as to the percent of rotation cropland devoted to legumes and grasses. For purposes of comparison the farms were divided into two groups, which were called low-forage and high-forage farms.

It was found that the high-forage farms obtained on each average acre 5 bushels more corn, 5 bushels more oats, .3 ton more hay, and 255 more total feed units than did the low-forage farms. It should be noted, however, that feed production decreased on these farms when about 35 percent of the cropland was put into grass and legumes.

A careful check of these farms indicated the soils were about the same in the two groups. There was little or no difference in respect to the amount of conservation applied or fertilizer used. The difference in yield is attributed to the additional nitrogen added to the soil by increased acreages of legumes, reduced soil losses from erosion, less washing away of plant nutrients, and fewer ditches. The annual loss of soil is estimated to be about 20 tons more per acre on the low-forage farms. Furthermore, more feed was produced and fed to livestock on the high-forage farms, and more manure was spread on the land.

Does all this pay? Well, in 1950 the high-forage farms averaged $834 more net income per farm than did the low-forage farms—a 51 percent increase.

The experiment station report concludes, "It should be remembered that the higher returns cannot necessarily be traced to any single factor. The differences in financial results were due to the *systems of farming associated with erosion control, not to erosion control alone.* Management skill is also important. It's a question of the entire farm plan—the amounts and kinds of feed produced and how it is used."

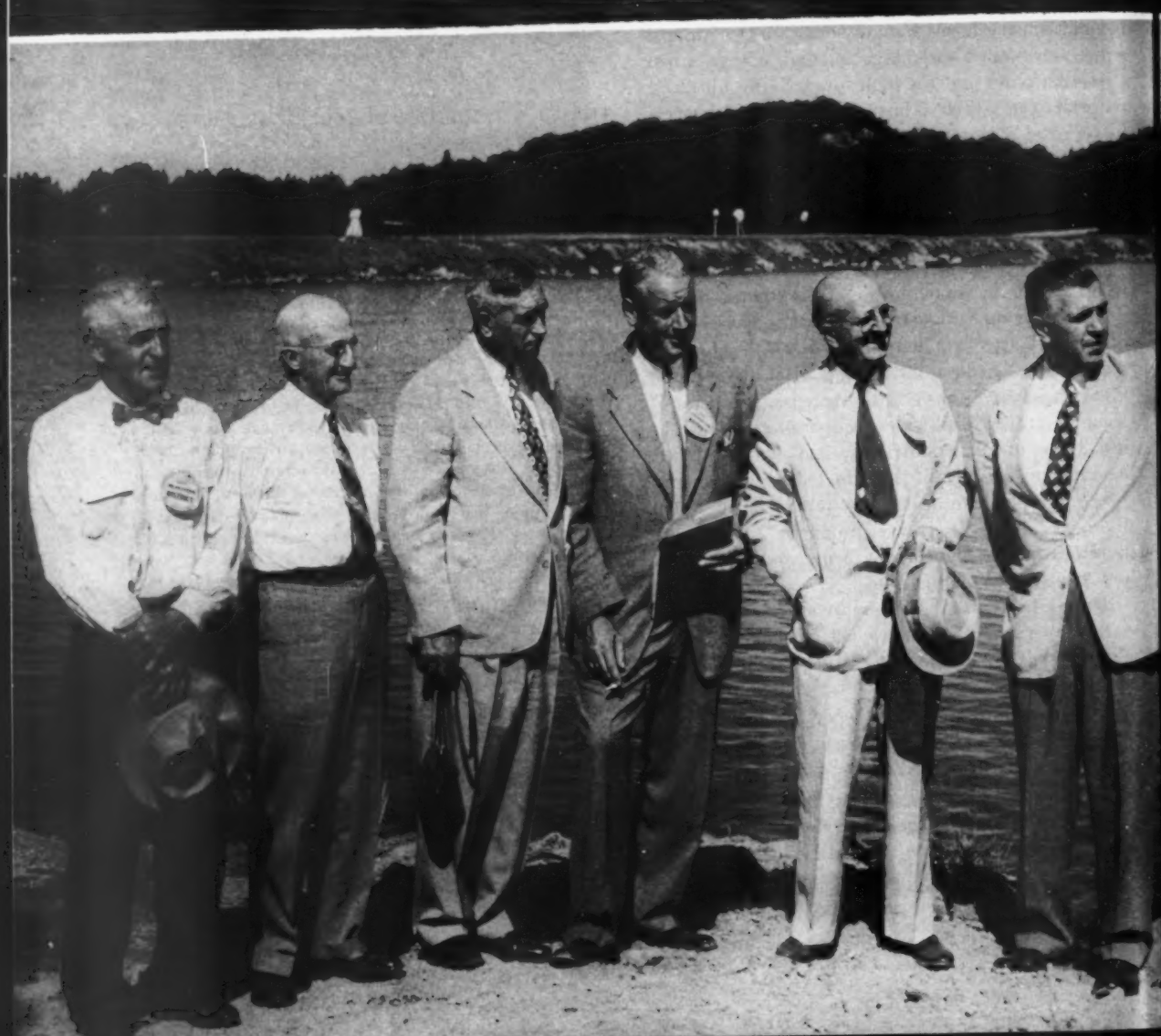
This study will be of concern to any farmer who is pondering the question, "How much of my cropland can I afford to plant to grass and legumes?" Full details of the study are available from the Nebraska Agricultural Experiment Station, University of Nebraska, Lincoln 3, Nebraska.

Note.—The author is chief, project plans division, Soil Conservation Service, Washington, D. C.

TENANT SETS HIGH STANDARD.—Jacob Krotje, Sussex County N. J., tenant farmer, who made conservation farming history 4 years ago when he agreed to operate a leased 135-acre Sparta farm the complete conservation way, has made good fully in his deal with the owner, Earl Price. In the process, Mr. and Mrs. Krotje have accumulated enough savings and built enough credit to buy a 200-acre dairy farm near Newton, N. J., where they are operating, of course, under a complete conservation plan made with Sussex County Soil Conservation District.

Price is pleased with the way Krotje kept his part of the deal in which he agreed to farm the place "in accordance with the directions and program of the agents in charge of soil conservation in Sussex County." The farm is in much better shape than it was when Krotje took over. Stone fences have been buried to facilitate stripcropping; fields have been rearranged to permit rotated grazing and stepped-up efficiency in the movement of men, machines and livestock. Where, prior to 1949, it was necessary to buy hay to carry the dairy herd, surplus hay was sold in 1952. Green Pastures contest honors were won 2 years ago. Furthermore, the Krotjes have presented to Milton Jager, the new tenant, a complete detailed record of their 4-years operation there. Mrs. Krotje kept them with extreme care, in accordance with specifications of the New Jersey College of Agriculture.

Their profits from 4 years of hard work enables the Krotjes to have a farm of their own, and to start operations with a 35-head herd—a nucleus for the 70 head they expect to carry eventually. Through the 4 years, according to Harry Slayback, extension soil conservationist in New Jersey, "The wide awake and generous way of farming that the Krotjes have followed has set a high goal for other tenant farmers." From their operations others than the Prices and Krotjes have benefited. Confidence in Krotje is found in his election as a Sussex County Soil Conservation District supervisor. —HUGH F. EAMES



The 840-foot dam in background was built by Dutchess County Soil Conservation District in cooperation with Fresh Air Fund, at a cost of $90,000. It was paid for by voluntary contributions.

"A Thousand Acres of Destiny"

Fresh Air Fund gives tenement children an opportunity to get acquainted with basic resources of soil and water.

DIRECTORS of the Dutchess County (N. Y.) Soil Conservation District and the New York Herald Tribune Fresh Air Fund joined hands July 25 to dedicate the 1,000-acre Sharpe Reservation near East Fishkill, N. Y.

About 400 persons attended exercises held in the center of the tract near the 25-acre lake, which is the first completed part of what Dr. Robert M. Salter, chief of the Soil Conservation Service, said would ultimately become a model land use development—"an example of using land within its capabilities and treating it according to its needs —a place where modern conservation farming methods are practiced."

Speakers included Thomas E. Dewey, governor of the State of New York; Vincent Impellitteri, mayor of the City of New York; Kent Leavitt, Dutchess district director and former president of the National Association of Soil Conservation Districts; Dr. Salter; Whitelaw Reid, editor, New York Herald Tribune, and Frederick H. Lewis, executive director of the Fresh Air Fund. A paper prepared by Oveta Culp Hobby, Secretary of Health, Education and Welfare, who was unable to attend, was read by Mrs. Whitelaw Reid.

Also on the program were canoe races, demonstrations of camping skills, and induction of the speakers into the Six Nations Indian Confederacy.

Directors of the Fresh Air Fund, which is now in its 77th year of providing vacations to children of New York City tenements, have

The 25-acre lake is visited by men of Dutchess County Soil Conservation District, under whose supervision the land-use development of Sharpe Reservation is being carried out: Herrick Hedges, Pine Plains, George Culver, Millerton, directors; Henry W. Davis, SCS engineer; Kent Leavitt, Millbrook, director; Harold Wright, Pawling, chairman; Harold Klingaman, SCS area conservationist.

planned five camps for the area. Only one of them, for 72 boys in the 13 to 16 age bracket, is being operated now.

The conservation plan, under the terms of a cooperative agreement between the Fund officials and the soil conservation district, provides for proper use of each acre in the reservation.

Fifty-two acres, once farmed, will be returned to cropland under a stripcropping, diversion-terrace, and 5-year rotation system. A 9-acre contour orchard will be established. There will be 49 acres of hay and pasture land, complete with drainage terrace, stock water pond, living hedge fences, and conservation management. The 633 acres of woodland will be under conservation management, with protection against fire and grazing, improvement cutting, replanting and wildlife development. Sixty-six acres, including the lake, will be developed for recreation and as wildlife areas, with planting of game food and cover, and possible development of a muskrat marsh or a fish pond.

When the well-rounded conservation plan has been carried out, as Dr. Salter said in his talk, "The children of the city tenements who come to this part of the Fresh Air Fund camping system will be the beneficiaries not only of a wholesome, healthful vacation in God's great out-of-doors, but also will learn valuable, lasting lessons in the preservation of our basic resources of soil and water. No other lesson is more important for them to learn."

In 1952, according to Executive Director Lewis, the Fresh Air Fund sent 12,315 children to 6 summer camps and to private homes of 1,533 "Friendly Towns" in 13 northeastern states. The Fund received 18,974 individual gifts that totaled $365,897. In 76 full years of operation, the Fund has provided vacations to 786,648 children.

Lewis, in explaining the objectives, pointed out that even organized summer camps in recent years have become hardly more than a repetition of city-type activities carried on in a country setting. "We have made a break with tradition," he said. "We have two unique opportunities. The first is to give children who have never had a chance to be treated as *individuals* that precious opportunity. The second is to expose them for the first time to the wonders of the natural world."

To achieve those two aims the Fund operates on what is known as a small group plan. No more than 12 campers live together, with their two counselors, in families called "campsteads." Three campsteads make up a village and there may be several villages in a whole campstead. The basic life of the camper is his campstead. "No child is ever lost in the crowd in this type of living," said Lewis. "Each youngster has a definite role to play in his group, a sense of his individual importance, a place of his own in his community."

With small group camping, Lewis pointed out, where each individual is a participant and not merely a spectator, each youngster has a real chance to develop first-hand acquaintance with the exciting details of the natural world by doing things himself. "In this atmosphere the urgent problems of natural and human conservation stand a chance of ultimate solution by those who soon will be carrying the responsibilities of the world," Lewis said.

Speakers at the dedication of Fresh Air Fund's Sharpe Reservation are inducted into the Six Nations Indian Confederacy and the Indian Defense League by Chief William Rickard, of the Tuscarora Nation. Placing hands on Wampum belt are Kent Leavitt, a director of Dutchess County Soil Conservation District and former president of the National Association of Soil Conservation Districts; Thomas E. Dewey, governor of the State of New York; Vincent R. Impellitteri, mayor of the City of New York; Dr. Robert M. Salter, Chief, Soil Conservation Service; Whitelaw Reid, editor, New York *Herald Tribune* and president, Fresh Air Fund, and Frederick H. Lewis, executive director of the Fund.

Soon to rise around the lake, heart of the land use project, will be additional camps for needy children, in all, a million dollar program. As Lewis said, for the thousands of boys and girls who will come this way, Sharpe Reservation may well be "A Thousand Acres of Destiny."

20 Years of Showing the Way

Celebration held to commemorate establishment of world's first large-scale watershed erosion control demonstration.

By LEWIS C. FRENCH

COON VALLEY, nestled in the hills of the western Wisconsin coulee region, became an historic shrine of modern soil conservation this summer when its residents celebrated the 20th anniversary of the Coon Valley erosion control demonstration project.

Established in October 1933, it was the first of a series of similar demonstrations set up by the newly-organized Soil Erosion Service in the principal geographic and agricultural sections of the country.

Note.—The author is farm editor of the *Milwaukee Journal.*

Ed Kerska, chairman of the celebration, shows Dr. Bennett a marker proclaiming Coon Valley as the first site of an erosion control demonstration project.

"The Coon Creek project was the first large-scale soil conservation watershed demonstration ever carried out by man," Hugh H. Bennett declared at the anniversary celebration July 19. The Vernon County Historical Society placed an appropriate marker in the small community park in the village.

Hundreds of farmers whose land and homes are in the coulee county turned out to pay tribute to the bold men who had acted in time to save their land.

Dr. Bennett, former chief of the U. S. Soil Conservation Service, the man who curbed the dust storms of the thirties, came back to see the results of an idea he tested earlier to save the coulee country of the Mississippi watershed.

For a full day the "chief" rode through the country, now in its full colorful harvest glory. This time, rather than eroded and barren slopes, he could see contour strips of lush corn, the contrasting gold of the oats and barleys and green grass with woodlots on the ridges. He called it "the most beautiful sight in the world."

In his work as a soil expert sent around the globe to cure famine, Bennett has seen how neglect and erosion stripped the Holy Land of its fertility, ruined the old Nile Valley and stripped Italy and Spain of its once rich soil.

Bennett came to Wisconsin in 1927 and looked at the Mississippi Valley watershed. The land had been tilled and plowed only 70 to 80 years, yet its slopes were already being washed skin-thin of soil with deep gullies creating a thousand small editions of the Grand Canyon.

Bennett jumped to the task of stopping this and other national erosion. Soon after, the LaCrosse Erosion Experiment Station was set up on Granddad's Bluff overlooking the Mississippi River. Con-

gress appropriated 5 million dollars, more as a make-work measure for the depression than with hope that the erosion problem could be solved.

It was then that Noble Clark and others of the University of Wisconsin walked into Bennett's new office at Washington, D. C.

"When I was made Director of the Soil Erosion Service, which in 1935 became the Soil Conservation Service, I was the only man in its employ," Bennett said. "We had very few friends. Our life was predicted as being limited. As I sat alone as the first employee of the organization, Clark was one of my few callers. During our visit he and I agreed that the maintenance of productive land is dependent upon proper land use and the application of soil conservation practices as needed. Clark's support and encouragement was a big help to me in pursuing the objective which we see in effect on the land all around us."

There were 92,000 acres in the valley and 815 farmers. Carefully chosen men were thrown into the task, because thousands of farmers in the Upper Mississippi Valley would be watching. In 2 years the project had laid the groundwork by signing agreements with over half the farmers. From then on the work progressed and the valley is now a showplace for conservation.

The Genoa ridge section of the valley tells a story which is typical of others. It was farmed mainly by Italian immigrants who came to fish in the Mississippi and to work on the railroad as section hands. With hard times, few fish and no jobs, they took to farming on the slopes.

The soil conservation technicians had a difficult time convincing these Italian farmers to plow across the slopes rather than up and down and to fashion their fields in strips to the contours and not plant solid fields of corn and grain on the slopes.

"The men who helped on this demonstration, proving it here, carried the application around the world," said Ralph H. Musser, regional director of the Soil Conservation Service. "The same thing is going on in Burma, Formosa, Korea and even Alaska."

Soil conservation, as proved in this valley, has added millions of acres to soils that really produce the bumper crops.

Bennett sees a potential of 650 million acres of high production under soil conservation. That is more than 3 acres per capita, for more than 200 million people.

Having placed a marker at the base of the park flagpole, the Vernon County Historical Society plans a larger monument near the main highway. The whole valley is proud of something a lot of people doubted just 20 years ago.

At celebration: Ralph H. Musser, H. H. Bennett, and Joe Stromstad, Coon Valley farmer and early cooperator.

DISTRICT PROFILE

SOLOMON HOKE of MARYLAND

UP UNTIL a few years ago there was a dump cart on the old Bachman Farm in Bachman's Valley, Md., which was used to haul topsoil back up the hills. There is no longer any need for such equipment since Solomon Hoke helped to organize the Carroll Soil Conservation District in 1934. Now, 90 percent of the 120 farms in Bachman's Valley are cooperating with their soil conservation district in applying sound soil and water conservation practices.

Sol Hoke is Pennsylvania Dutch. He first lived in York County and then in Adams County, Pa. In 1930 he moved to his present livestock farm in Carroll County, Md. Sol says that he never had thought seriously about the importance of soil conservation until a few years ago when he and Mrs. Hoke were traveling to the Lancaster Stockyards soon after a cloudburst. They came to a spot in the road where two fields of approximately the same degree of slope drained down toward the road. One field was planted solidly in tobacco, the other was in corn, wheat, tobacco, and hay in strips on the contour. All of the topsoil from an area 100 feet wide had washed onto the highway from the solid tobacco field. The other field had lost very little topsoil.

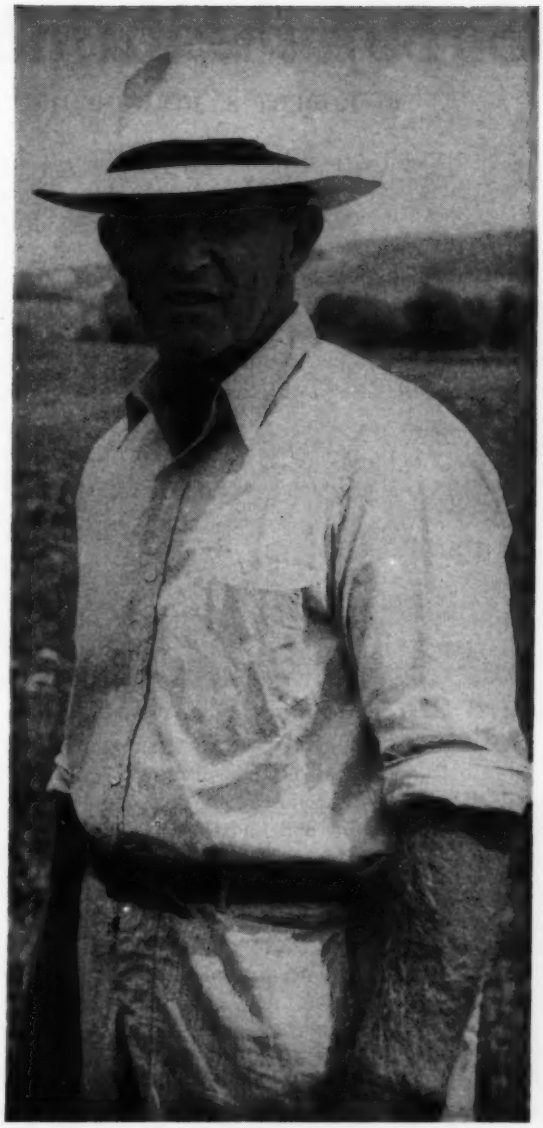
Sol decided at that moment that there must be something to this contour method of farming. So he went back home and was the first farmer in Bachman's Valley to lay out contour lines for stripcropping.

Sol Hoke has been a member of the board of supervisors ever since the Carroll Soil Conservation District was organized in 1944.

He has been active in the Farm Bureau since 1925, having served as a member of the National Livestock Committee for several years.

He is president of the Frederick Production Credit Association which serves four Maryland Counties.

He is also a member of the National Advisory Committee of the Federal Land Bank, and always plugs soil conservation practices at committee meetings.



Solomon Hoke.

In addition to being a member of the board of supervisors of the Carroll Soil Conservation District Sol Hoke is president of the Monocacy River Watershed Council. This is an organization involving three counties in Maryland and one county in Pennsylvania. In the summer of 1952 a subwatershed conference was held in the Deep Run-Big Pipe Creek Watershed. Sol Hoke presided at

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So Soft the Rain!

By ROBERT S. JONAS

CONVERTS to stripcropping sometimes come slowly. Often this is because they object to the type or width of strips recommended by SCS technicians who cooperate with farmers in soil conservation districts. Some object to contouring because they think it will be more difficult to handle the land and the crops. At other times, they object to the width of strips, want them wider—say, 150 feet when the technicians recommend only 100 feet.

Strips on Robert Glor farm.

Then, after years of observation, they see that the 100-foot widths give better control of erosion and runoff and permit wider use of the land. So they change their minds and find that it pays.

Take the case of Robert F. Glor, well known farmer of Attica, N. Y. In 1935 he bought a farm for his son Donald. It was 3 miles from the CCC Camp at Attica and was badly eroded and robbed of fertility by loss of topsoil. Glor thought the CCC technicians could do the farm no more harm, so he asked Hugh Wilson, the camp's farm planner, to help him make a conservation plan for all of Don's acres.

They agreed on everything except the width of strips. Wilson recommended 100 feet. Glor held out for a width of 150 feet and when they could not agree, the whole project was dropped.

Several months later, Wilson went back to Don's farm and decided to take a chance on 150-foot strips so they could get the whole plan established on the farm. "When you see how much good we do this farm, you'll have us over on your home farm to lay out 100-foot strips," he said.

Note.—The author is work unit conservationist, Soil Conservation Service, Rochester, N. Y.

Two years after the complete plan had been put in effect at Don Glor's farm, Hugh Wilson's forecast came true. Bob Glor's farm was planned at Bob's request and the strips were laid out and plowed in at 100-foot widths. "I probably won't be able to work that bottom strip," said Bob, "It's always been plenty wet, even with furrows running through it for drainage." Much to his surprise, however, the stripcropping and diversion ditches made the bottom strip just as productive and just as easy to handle as any of the strips higher up.

For several years after he started stripcropping, Bob Glor recalls, he had an idea that it was not raining so hard as in previous years. Then one morning, awakened by the sound of rain falling on the roof, he suddenly realized that he had always measured the intensity of a downpour by the sound of water running down the bean rows. With everything in contour strips, there were no unbroken steep slopes for the runoff to charge over—no sound of rainfall! It was raining fully as hard as in earlier years, but the rains were being soaked up and were helping his crops, not washing his topsoil away.

Today, Donald Glor is doing most of the work on the two farms the conservation way. Lately he has purchased a third farm, next to his original acres. He has extended his agreement with the Wyoming County Soil Conservation District so that one plan covers his two farms. Strips have been extended across both farms, and in that process some of the 150-foot-wide strips have been reduced to an average of 100 feet.

Bob Glor, while no longer very active in farming, sees a lot of conservation farming as he travels around Wyoming County as a representative of a Buffalo newspaper. Donald is an outstanding farm leader. He's active in many neighborhood groups and is a member of the Wyoming County Farm Bureau executive committee.

FIFTY FOR ONE.—Cecil Attaway, Bleckley County cooperator in the Central Georgia Soil Conservation District, estimated that terraces constructed in his district program saved him during a series of heavy rains a minimum of $1,000 in replanting costs. "This does not include the saving of soil which would have been a far greater loss," Attaway said. "Seed and fertilizer can be bought, but topsoil washed away is lost forever. I value my terraces at $50 to $100 for each dollar spent in their construction," he concluded.

Avoid Waste When Cutting Trees

By MELVIN L. RIGDON

E. W. "Jiggs" Morris and Wallace Kohler watch Loyd Burnett, of the Soil Conservation Service, bore into tree to check its rate of growth.

TAKE it from E. W. "Jiggs" Morris of Oregon's Josephine County, owners of farm woodland tracts can make timber-cutting pay off these days if they do it the conservation way.

Morris should know. He's made tree-farming a lucrative business on his place in the Illinois Valley Soil Conservation District. He's just started a salvage-cutting of some 100 acres of logged-off land, an enterprise he hopes will work into a full-time job.

But Morris says wasteful logging plus poor woodland management are gouging into tree farm profits, and must be replaced with selective cutting if farmers are to get a full measure of profit.

Too often, he says, logging operations leave nothing but stumps and unmarketable hardwoods.

Note.—The author is soil conservationist, Soil Conservation Service, Cave Junction, Oreg.

"That shouldn't happen to any farm woodland," he points out.

With help from technicians of the Soil Conservation Service and the district board of supervisors, Morris has worked out a long-range timber-cutting program. He logs the stand first to remove culls, says, offers a ready market for woodland owners. He can pay $2.50 per cord for oak and laurel, cut the wood himself, and still make a good profit on charcoal.

He makes this observation on tree-farming: "Many farmers who agree that our timber should

Loyd Burnett, technician, E. W. Morris and Wallace Kohler, farm woodland owners, check distance between trees for proper spacing in relation to diameter.

old wolf trees, conky, and some hardwood trees, to clean up the stand and to give young trees growing room.

He plans to take over several farm forests and farm them on a sound management basis to provide year-around work.

There's a ready market for a large amount of salvage timber according to Morris. For example, he has found an outlet for around 8,000 hop poles at 85 cents each and car stakes at 45 cents. He cuts such waste timber products out of the tops of trees or from pole thickets that need to be thinned. Such products, he explains, add a lot to his woodland income. Making use of waste slashings reduces the fire danger.

Morris has also found a good outlet for his large supply of salvage fir and hardwoods in the production of charcoal. He has one kiln operating and two more are due to go in this winter. Charcoal, he be managed for alltime are holding their own timber too long before the first tree harvest.

"Timber stands will produce a lot more if they are properly managed, the way our soil conservation district supervisors are recommending. Nature needs man's help to raise maximum tree crops."

Another Illinois Valley farmer, Wallace Kohler, expects to begin selective cutting of 200 acres of woodland by next spring.

He'll do most of the logging with a team because, as he says, "I've seen too much damage to forest soils, young plants, and old and young trees from machine logging."

Some of his forest holdings, which have been logged with heavy equipment, show the worst for wear. On the other hand, Kohler thinks horse-logging keeps damage to a minimum. The skid roads he is laying out are for years of use.

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Revamped Water System

AS A RESULT of a complete reorganization of his irrigation system, production of feed for his livestock was doubled last year according to Reed Gappmayer, rancher in the Upper Wallsburg Valley near Heber, Utah. He also reports a saving of one-third of his time in irrigating through better control of the water.

Prior to the installation of the new system, Gappmayer was irrigating about 65 acres of high bench land from a winding ditch that traveled about 4 miles to bring water from the left fork of Hobble Creek to the farm. During the irrigating season Gappmayer had to ride horseback for 2 to 3 hours each time he needed to regulate the water flow at the head of the ditch.

Gappmayer at outlet-control structure of storage reservoir.

Gappmayer admires his new canal where it heads into Hobble Creek. Only a half mile long, it replaces one that extended four miles.

By early June irrigation water in the creek usually became so low that most of it was lost by evaporation and seepage before reaching the land to be irrigated. Too, the small stream that did reach the farm could not be used efficiently.

Gappmayer called upon supervisors of the Wasatch Soil Conservation District for help in devising a plan to get more irrigation water to his farm for a longer period of time. DeWitt Grandy, Soil Conservation Service representative working with the Wasatch district, assisted Gappmayer in developing a conservation program for his land based upon needs indicated by the land capability survey made by SCS technicians.

As the first step in applying the conservation plan, the route for a canal from the left fork of Hobble Creek to Gappmayer's farm was surveyed on grade. The engineers found that only slightly more than a half-mile of canal would be needed to deliver irrigation water from the creek to the farm.

Next, an overnight storage reservoir was constructed on the farm at the end of the canal. Now, when the creek is low, the small flow of water can be stored in the reservoir until there is enough to provide a stream large enough for irrigating. The reservoir was constructed in a clay loam soil which Gappmayer says, "Holds water like a dishpan."

The reservoir and canal were built with heavy equipment the use of which was arranged by supervisors of the Wasatch district.

The saving in time formerly required for irrigating the high bench land now is giving Gappmayer more time to devote to carrying out a complete conservation program on the rest of his land. This includes clearing brush, leveling, planting of adapted pasture and hay mixtures, and applying the proper amount of irrigation water.

Gappmayer says he is extremely interested in making the best use of his soil and water resources because, as he puts it, "This ranching job is a long-time proposition." The irrigation system improvements also give Gappmayer time to pause occasionally and enjoy the grandeur of the mountains surrounding his ranch.

WHEN CUTTING TREES

(Continued from page 92)

Kohler looks at it this way: "Farm forests should be cut for steady cropping. Farmers can't afford to pay taxes on land that does not produce, and much land is good only for growing timber.

He says Christmas tree cutting is causing a lot of damage to woodlands the country over. Generally, trees up to 6 inches through are cut and the top 8 feet taken for Christmas trees, leaving the rest waste.

"If farm woodland timber were properly managed," Kohler contends, "such cuttings would be made when trees are 8 to 10 feet high and thus not waste marketable poles and many years' growth. Proper thinning by selective cutting of Christmas trees would help trees grow at their maximum rate. Later, poles can be taken out, and another thinning made in a few years."

SOLOMON HOKE

(Continued from page 89)

this conference at which farm men and women conducted a panel discussion which helped considerably to speed up conservation work on the watershed. During the conference, Jim Shriver, on whose farm the meeting was held, stated that his farm was not being flooded by the streams overflowing their banks as it used to be. Sol Hoke replied, "That is easily explained. We fellows upstream are keeping our water under control, not letting it run off rapidly into the streams."

Sol Hoke says that the assistance of State and Federal agencies in carrying out a soil conservation district program is imperative. Recognition of the problem on the part of the Extension Service, for example, has helped to sell conservation to the farmers of the district. And technical assistance provided by the Soil Conservation Service has been invaluable. Hoke observes, however, that "The only way the job is going to get done is by local men and women in their own communities."

—FRED L. BULL

BRAND NEW AWARDS PROGRAM.—Creation of an annual $5,000 awards program for professional contributions in the field of conservation of natural resources was announced today by George W. Mason, president and chairman, Nash-Kelvinator Corporation. Recognition will also be given to non-professional contributions.

The nationwide program will be known as "Nash Conservation Awards." Cash awards of $500 each will be presented to 10 professional conservationists, working in education, research, administration or enforcement, in any field related to soil, water, forest, fish or wildlife conservation. In addition, 10 awards consisting of plaques and citations will be given to non-professionals whose contributions have been performed as acts of good citizenship.

"The real sportsman has prize enough in his big musky or record grizzly, but there should be greater recognition for those who are devoting so much to the cause of conservation," Mason said, "We hope these awards will serve as a reminder to all of us that conservation today is a science, and without expert conservationists there would soon be no fish or game left. It is also important to stress the fact that all phases of the problem are related—including soil, water, forest, fish and wildlife conservation."

An enthusiastic fly-fisherman, Mason for years has been active in conservation programs. He is a long-time director and treasurer of Ducks Unlimited.

Nominations for awards are to be made by newspaper rod-and-gun and conservation editors, rod-and-gun clubs, and public and private conservation agencies. Final selections will be made by the Awards Committee, which for 1953 consists of Ed Dodd, creator of Mark Trail; Pieter Fosburgh, editor of the New York State *Conservationist;* Johnny Mock, outdoors editor of the *Pittsburgh Press;* Alastair MacBain, of the U. S. Fish and Wildlife Service, and Michael Hudoba, Washington correspondent and authority on conservation legislation.

This year's awards will be presented at a dinner in Washington, D. C., January 1954.

COAL COMPANY COOPERATOR.—Just about everybody is calling on soil conservation districts for assistance. Latest cooperator with the Letcher County Soil Conservation District in Kentucky is the Marlowe Coal Company. They will plant a minimum of 25,000 trees in 1954, A. B. Rogers, area conservationist at Hazard, Ky., reports.

MID-CENTURY CONFERENCE.—With the appointment of an over-all steering committee and the selection of 8 major areas for discussion, the structure of the Mid-Century Conference on Resources for the Future—a nationwide forum scheduled in Washington for December 2 to 4—is nearing final form.

The Mid-Century Conference has been called by Resources for the Future, Inc., a non-profit corporation for research and education in the field of natural resources. The agency has received a grant from the Ford Foundation for conducting the conference.

Norvell W. Page, conference director, announces that Conference Chairman Lewis W. Douglas has appointed 16 persons to a steering committee on which the many elements actively concerned with natural resources are represented. Plans call for adding one or two more members to the committee.

Included are representatives of the industries that extract, trade in, and use raw materials, along with representatives of conservation organizations and groups interested in long-range problems bearing on resources.

R. G. Gustavason, president of Resources for the Future, Inc., makes the following observation, "Since the conservation movement was launched under Theodore Roosevelt a half century ago there have been many separate studies and meetings of industrial and conservation groups. Now it is proposed, for the first time on so large a scale, to bring them together in a single meeting to look at the resources problem as a whole and to endeavor, through study and discussion, to point the way to mutually satisfactory solutions."

GRASS-VEGETABLE ROTATION.—The Atlantic Land and Improvement Company in the Hendry Soil Conservation District, Fla., has started a grass-planting program on their fields, to be followed by vegetables again in several years. Formerly fields were often abandoned to common bermuda or carpetgrass. The Florida Experiment Station has done several years' work along this line with Pangola grass and helped the company set up several hundred acres for grass-vegetable rotation. At suggestion of the Soil Conservation Service, they are also putting in 50 acres of Pensacola Bahia grass to be tried in a rotation.

CAN ANY BOARD BEAT THIS?—For length of service, the board of supervisors of the Kiamichi (Okla.) Soil Conservation District has perhaps one of the longest unbroken records in the nation. Four of the five members have been serving the full 14 years of district operation. They are Clarence Adams, R. L. Cook, H. A. Barnett and C. E. Barnhill.

Adams farms 370 acres. He is primarily a livestock farmer, raising sheep, cattle, horses, mules and hogs. Among his crops are popcorn, sericea lespedeza and native meadow. He specializes in bermuda pastures with overseeding of various winter clovers, including crimson clover. Some sericea and Dallis grass are in his pasture.

Cook has 1,600 acres. He lives in town but supervises his farm. He has extensive pastures of bermudagrass and clover, and Dallis grass and fescue. He has cleared large acreages of Red River bottom land and drained various areas. He maintains some native grass meadow. Angus cattle are his chief output.

Barnett lives on a farm of 78 acres on which he has 6 different kinds of pasture. Most of it is in bermuda.

Barnhill is an active farmer and rancher, and also has other interests.

The time these men have served their fellow farmers emphasizes their deep interest in the soil and the work of the soil conservation districts.

IOWA FARMERS HONORED.—Plans for a statewide recognition program to honor Iowa farmers for outstanding achievement in soil conservation were announced recently. Sponsors are the Des Moines *Register and Tribune*, the Iowa Association of Soil Conservation Districts, the Soil Conservation Service, the State Department of Agriculture, the State Soil Conservation Committee, the Iowa Agricultural Extension Service, and the Iowa Chapter of the Soil Conservation Society of America. There will be recognition of winning farmers in each district. District winners will compete for sectional honors and sectional winners will compete for top state awards.

ON CONTOUR TOO, NO DOUBT!—Cows roaming over broad expanses of green fields may become a thing of the past under a new system of strip grazing being developed at the University of Wisconsin.

Vic Burcalow and Henry Ahlgren, agronomists at the university, believe strip grazing will eventually eliminate many shortcomings of present pasturing practices.

Here's how the system works:

For an average-sized herd, a 20-to-25-acre grass-legume pasture is divided into strips separated by electric fences. The strips may be 1, 2 or 3 acres in size.

As many as 25 cows are turned into a single strip, and kept there until they have cleaned up the pasture in that section—usually not more than 3 days. Then they are moved to a fresh strip.

By the time the cows have made the rounds of all the strips (about 20 days), the first pasture is usually up so they can start around again.

Ahlgren and Burcalow say the method has one big advantage. Where cows roam over an entire pasture some of the forage always gets mature and tough, and a dip in milk production results.

If the cows are given only a small section at one time, they eat everything and make maximum use of pastures. Fresh pasture every few days keeps production up.

But, the agronomists add, strip grazing may require new methods of pasture management. To maintain a desirable stage of growth, some strips may have to be harvested as grass silage or hay. It isn't practical to fence off all the strips at once, so fences will have to be moved every few days. This hasn't proved to be much of a job, though, where electric fences are used.

Heavier fertilizing may be needed on grass-legume strip grazing pastures, they add, especially top dressings with a potash fertilizer during the grazing season.

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KINGSBURY COUNTY SOIL CONSERVATION DISTRICT

BOX 387 PHONE 235

DE SMET, SOUTH DAKOTA

July 23, 1953

Mr. Wellington Brink
Editor, SOIL CONSERVATION
Soil Conservation Service
Washington, D. C.

Dear Mr. Brink:

Writing letters to you seems to be becoming an annual affair with us. However we thought that you would be interested in knowing that for the fifth consecutive year we are purchasing subscriptions for our new cooperators.

This time we have ordered 106 subscriptions, bringing our five year total up to 576. We consider the money spent on this project of ours a good investment.

Sincerely yours,

Roland Leonhardt, Chairman
Kingsbury Soil Conserv. District

/s/ Harold C. Fritzel

By: Harold Fritzel, Treasurer

"Use each acre according to its capabilities and treat it according to its needs."